

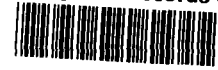


18-211

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

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EPA Region 5 Records Ctr.



180541

REPLY TO THE ATTENTION OF

**ACTION MEMORANDUM**

**DATE:** OCT 03 2002

**SUBJECT:** Request for a Time-Critical Removal Action at the ARCO Research Site in Harvey, Cook County, Illinois  
(Site ID# B53D)

**FROM:** Brad Benning *Brad Benning*  
On-Scene Coordinator

**TO:** William E. Muno, Director  
Superfund Division

**THRU:** Richard Karl, Chief  
Emergency Response Branch

**I. PURPOSE**

The purpose of this action memorandum is to request and document approval to expend up to \$990,000 to conduct a time-critical removal action at the ARCO Research Facility (the "Site") in Harvey, Cook County, Illinois. Specifically, the proposed removal action will address the removal of damaged, loose and fallen asbestos-containing material (ACM) from the former research facility.

The Site is an abandoned industrial research complex consisting of approximately 15 buildings with unrestricted access to the main office area where most of the ACM was observed. This action is necessary to abate the imminent and substantial threat to public health and the environment posed by the presence of friable asbestos due to the ongoing vandalism and past fires at the Site.

This site is not on the National Priorities List (NPL).

## II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID# ILN000508307

### A. PHYSICAL LOCATION

The Site is located at 400 East 147<sup>th</sup> Street in Harvey, Cook County, Illinois. The western boundry of the site parallels the Illinois Central Railroad or Metra Electric commuter rail line, the northern boundry is 147<sup>th</sup> Street, the eastern boundry of the site is adjacent to Field Elementary School, and the southern boundry of the site is adjacent to other industrial facilities. Coordinates for the site are latitude 41 degrees 37' 21" north, and longitude 87 degrees 38' 01" west. The nearest residential areas are approximately 500 feet from the Site, and the nearest body of water is the Calumet River, approximately 2,400 feet east of the site.

### B. SITE DESCRIPTION AND BACKGROUND

The Site is the former location of the ARCO Chemical Research facility, comprising numerous buildings on some 30 acres of land within Harvey, Illinois. The facility conducted research on oils and gasolines. The Site was acquired by BP Amoco in the 1980s, and later closed around 1990. A developer attempted to lease out the various buildings, but was able to attract only a few tenants and the City of Harvey acquired the property due to delinquent taxes in the mid 1990s. One company that was manufacturing lignosulfonate, an agricultural food additive, and dust suppressant left a considerable amount of product waste on site. The Site has numerous buildings including research/offices, power plant, radiation building, above-ground tank farm, under-ground storage tanks, and a utility tunnel with pipes containing ACM.

In 1983, ARCO conducted an environmental assessment in the southwest portion of the site; analytical results indicated the existence of elevated metals.

### C. CURRENT SITE CONDITIONS

At the request of Harvey officials, U.S. EPA conducted a removal assessment at the Site on April 23, 2002, by OSC Brad Benning and START personnel. The survey team was lead by a Weston Asbestos Inspector trained according to the U. S. EPA Asbestos Hazard Emergency Response Act (AHERA) and currently licensed in the State of Illinois to perform asbestos building inspections.

The main building had been extensively vandalized, with all entrances unsecured. Extensive damage to most of the windows were evident, as well as numerous fires in the several rooms and hallways. Vandals had significantly impacted all interior surfaces of the main building by scrapping recyclable materials from the facility and leaving the insulation scattered throughout the floors. In addition to the main office building, the pilot plant, radiation building, and utility tunnel were inspected and damaged suspected asbestos-containing material (SACM) was observed. The survey team collected 39 samples of SACM throughout the main building, surrounding buildings, and the school lawn directly east of the facility. The bulk samples were analyzed using polarized light microscopy with dispersion staining (PLM DS) in accordance with the EPA's "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA-600/M4-82-020). This method identifies the asbestos type present in the material and quantifies the percentage of asbestos in the sample.

Asbestos was confirmed in the fireproofing, pipe insulation, ceiling tile paper, floor tile, and duct insulation. Of the 39 samples analyzed 22 were positive for asbestos, with an estimated 135,000 square feet of ACM. It was estimated that up to 50% of the ACM observed was damaged, loose, or had fallen to the ground and mixed with other building debris.

U.S. EPA is currently attempting to identify Potentially Responsible Parties (PRPs) for possible enforcement actions. The City of Harvey is currently negotiating with a local university to purchase the property for a suburban campus. The City is pursuing the cleanup of non-hazardous waste and the removal of several underground tanks.

The Environmental Justice (EJ) Analysis indicated that the site is located in census tract 8272, block group 2, with a population of 1303. To meet the EJ concern criteria, the area within 1-mile of the site must have a population that is twice the state low income percentage and or twice the state minority percentage. For this site, the area must be at least 54% low-income and or at least 50% minority. At this site, the low-income percentage is 24.8%, and the minority percentage is 51.2%. Therefore, this site does meet the region's EJ criteria based on demographics as identified in "Region 5 Interim Guidelines for Identifying and Addressing a Potential EJ Case, June 1998".

### **III. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

The conditions at the Site present an imminent and substantial threat to human health and the environment and meet the criteria for initiating a Removal Action under the National Contingency Plan, Section 300.415, Paragraph (b)(2). The following factors from §300.415(b)(2) of the NCP form the basis for EPA's determination of threat presented, and the appropriate action to be taken:

**a) Actual or potential exposure to hazardous substances or contaminants by nearby human populations, animals or the food chain;**

This factor is present due to the existence of ACM, some of which may be friable, throughout many of the facility buildings. A sample of friable asbestos was analyzed and found to contain 25-30% asbestos. Also, there is unrestricted access to the main building where a majority of the ACM was found. Trespassers and scrappers will be walking through fallen ACM and will be releasing it to the environment as they enter and leave the buildings. The friable ACM is continuously being exposed to the ambient air and the potential exists for the asbestos fibers to become airborne. A day-care facility and elementary school are directly east of the facility posing a potential direct contact threat to children. The potential for future vandalism, fires, and continued deterioration of the facility will increase the exposure to nearby human populations.

Asbestos is a hazardous substance as defined by 40 CFR Section 302.4 of the National Contingency Plan (NCP). Asbestos is a potential concern because chronic inhalation exposure to excessive levels of asbestos fibers suspended in air can result in lung disease such as asbestosis, mesothelioma, and lung cancer. Exposures via ingestion and dermal contact are considered to be of lesser concern.

**b) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;**

This factor is present at the Site due to the existence of surficial ACM that may migrate into adjacent areas via airborne dust during dry periods and/or periods of high winds or via surface runoff during heavy rains. Most of the buildings are not secured with windows and doors missing which could increase the potential of exposure during windy conditions.

**c) The availability of other appropriate Federal or State mechanisms to respond to the release;**

The response actions required to mitigate the threat at the Site are currently beyond the resources of the Illinois EPA and the City of Harvey.

**IV. ENDANGERMENT DETERMINATION**

Asbestos is a generic term for a group of six naturally-occurring fibrous silicate minerals. Asbestos can cause asbestosis and is a recognized human carcinogen, causing lung cancer and mesothelioma, a lethal neoplasm of the lining of the chest and abdominal cavities. Cancer of the larynx and esophageal lining has also been associated with exposure to asbestos. Commercial forms of asbestos have been found to be carcinogenic in experimental animals.

The actual or threatened release of asbestos from the Site, if not addressed by implementing the response action selected in this Action Memorandum, presents an imminent and substantial endangerment to the public health, welfare, and the environment.

## **V. PROPOSED ACTION AND ESTIMATED COSTS**

The following response actions are proposed to mitigate the threats posed by the approximately 3000 cubic yards of ACM at the ARCO Research Facility Site:

- A. Develop and implement a Site Safety and Health Plan;
- B. Provide and maintain site security around contaminated areas;
- C. Post warning signs around the contaminated areas;
- D. Prepare a Removal Action Work Plan, which will contain a description of the response action to be taken, an implementation schedule, and a list of personnel involved in implementing the response action;
- E. Using appropriate methods, remove detached ACM from all buildings including but not limited to pipe insulation, duct work, ceiling tile, fireproofing, floor tile, and contaminated building debris. Damaged but not yet detached ACM will be removed only if it is so damaged as to render encapsulation impractical or not cost effective.
- F. Perform personal air sampling and ambient air sampling during removal activities;
- G. Implement engineering measures to control dust during the removal action;
- H. Transport and dispose of the ACM material at an EPA-approved landfill which is licensed to accept asbestos;
- I. Characterize and arrange appropriate disposal for other hazardous substances discovered during the asbestos abatement action;

It is estimated that the removal action will take approximately 30 days of on-site work time.

The OSC has begun planning for the provision of post-removal site control, consistent with the provisions of Section 300.415(k) of the NCP. The nature of this removal will minimize post-removal site control.

The response actions described in this Action Memorandum directly address actual or threatened releases of hazardous substances, pollutants, or contaminants at the facilities in the affected area which may pose an imminent and substantial endangerment to public health and the environment. These response actions do not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

All applicable or relevant and appropriate requirements (ARARs) will be complied with to the extent practicable. Any State ARAR identified in a timely manner for this removal action will be complied with to the extent practicable. A letter dated September 3, 2002, was sent to the Illinois EPA requesting any additional ARARs that would be appropriate for this site.

### **Estimated Costs**

The following cost estimates include costs associated with the removal action for purposes of creating a total project ceiling. These costs are being estimated anticipating that the project will need to be performed as a fund lead action. The costs do not include any past or future investigation costs on the Site. Costs are projected as follows:

### **REMOVAL ACTION PROJECT CEILING ESTIMATE**

#### **EXTRAMURAL COSTS**

##### Regional Removal Allowance Costs:

ERRS Contractor	\$ 700,000
Contingency (15%)	<u>105,000</u>
Subtotal	805,000

##### Other Extramural Costs Not Funded from the Regional Allowance:

START	20,000
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Extramural Subtotal	825,000
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Extramural Contingency (20%)	<u>165,000</u>
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**TOTAL, REMOVAL ACTION PROJECT CEILING    \$ 990,000**

**VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

Delayed or non-action may result in increased likelihood of inhalation of airborne asbestos fibers from the site.

**VII. OUTSTANDING POLICY ISSUES**

This proposed action requires concurrence from OERR as the principal contaminate of concern is asbestos, and therefore is considered nationally significant or precedent-setting.

**VIII. ENFORCEMENT**

For administrative purposes, information concerning confidential enforcement strategy for this Site is contained in the Enforcement Confidential Addendum. The total costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$ 1,392,420.<sup>1</sup>

( Direct Costs) + (Indirect Costs) = **Estimated EPA Costs for a Removal Action**

(\$990,000 + \$10,230) + (39.21% x \$1,000,230) = **\$1,392,420**

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<sup>1</sup>Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgement interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual costs from this estimate will affect the United States' right to cost recovery.

## IX. RECOMMENDATION

This decision document represents the selected removal action for the ARCO Research facility Site located in Harvey, Cook County, Illinois, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for the ARCO Research Facility Site. Conditions at the Site meet the NCP Section 300.415 (b) criteria for a Removal Action, and your approval is recommended. The total project ceiling, if approved, will be \$990,000. Of this, an estimated \$970,000 comes from the Regional removal allowance. You may indicate your decision by signing below:

APPROVE: W. E. Myers DATE: 10/3/02  
Director, Superfund Division

DISAPPROVE: \_\_\_\_\_ DATE: \_\_\_\_\_  
Director, Superfund Division

Attachments: I. Administrative Record  
II. Confidential Enforcement Addendum  
III. Detailed Contractor Costs  
IV. EJ Analysis

cc: R. Worley, U.S. EPA, OERR, 5202G  
M. Chezick, U.S. Department of the Interior, **w/o Enf. Addendum**  
B. Everetts, Illinois EPA, **w/o Enf. Addendum**



# ATTACHMENT I

## U.S. ENVIRONMENTAL PROTECTION AGENCY REMOVAL ACTION

### ADMINISTRATIVE RECORD FOR ARCO RESEARCH SITE HARVEY, COOK COUNTY, ILLINOIS

ORIGINAL  
JULY 16, 2002

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	04/16/98	Ecology and Environment, Inc.	U.S. EPA	Site Assessment Report for the Former ARCO Research Facility	44
2	00/00/00	Weston	U.S. EPA	Removal Assessment Report for the ARCO Research Site ( <b>PENDING</b> )	
3	00/00/00	Benning, B., U.S. EPA	Muno, W., U.S. EPA	Action Memorandum: Request for a Time- Critical Removal Action at the ARCO Research Site ( <b>PENDING</b> )	

## **ATTACHMENT II**

### **ENFORCEMENT CONFIDENTIAL ADDENDUM**

**ARCO RESEARCH SITE  
HARVEY, COOK COUNTY, ILLINOIS**

**SEPTEMBER 2002**

**ENFORCEMENT CONFIDENTIAL  
NOT SUBJECT TO DISCOVERY**

**(REDACTED 3 PAGES)**

**NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION**

**ATTACHMENT III  
ERRS CONTRACTOR COSTS  
ARCO RESEARCH FACILITY SITE**

PERSONNEL	\$ 350,000
EQUIPMENT	100,000
MATERIALS	100,000
TRANSPORTATION	25,000
DISPOSAL	<u>125,000</u>
<b>TOTAL</b>	<b>\$ 700,000</b>

# Region 5 Superfund EJ Analysis

## Arco Research Lab Site Harvey, IL

